



## SEQUENCE LISTING

<110> Novartis AG

<120> Modified viral surface proteins for binding to extracellular matrix components

<130> 4-30246a/GTI

<140> US 09/904,923

<141> 2001-07-13

<160> 3

<170> Patentln version 3.1

<210> 1

<211> 229

<212> PRT

<213> Moloney murine leukemia virus

<400> 1

Ala Ser Pro Gly Ser Ser Pro His Gln Val Tyr Asn Ile Thr Trp Glu  
1 5 10 15

Val Thr Asn Gly Asp Arg Glu Thr Val Trp Ala Thr Ser Gly Asn His  
20 25

Pro Leu Trp Thr Trp Trp Pro Asp Leu Thr Pro Asp Leu Cys Met Leu  
35 40

Ala His His Gly Pro Ser Tyr Trp Gly Leu Gly Tyr Gln Ser Pro Phe  
50 55 60

Ser Ser Pro Pro Gly Pro Pro Cys Cys Ser Gly Gly Ser Ser Pro Gly  
65 70 75

Cys Ser Arg Asp Cys Glu Glu Pro Leu Thr Ser Leu Thr Pro Arg Cys  
85 90 95

Asn Thr Ala Trp Asn Arg Leu Lys Leu Asp Gln Thr Thr His Lys Ser  
100 105 110

Asn Glu Gly Phe Tyr Val Cys Pro Gly Pro His Arg Pro Arg Glu Ser  
115 120 125

Lys Ser Cys Gly Gly Pro Asp Ser Phe Tyr Cys Ala Tyr Trp Gly Cys  
130 135 140

Glu Thr Thr Gly Arg Ala Tyr Trp Lys Pro Ser Ser Ser Trp Asp Phe  
145 150 155 160

Ile Thr Val Asn Asn Asn Leu Thr Ser Asp Gln Ala Val Gln Val Cys  
165 170 175

Lys Asp Asn Lys Trp Cys Asn Pro Leu Val Ile Arg Phe Thr Asp Ala  
180 185 190

Gly Arg Arg Val Thr Ser Trp Thr Thr Gly His Tyr Trp Gly Leu Arg  
195 200 205

Leu Tyr Val Ser Gly Gln Asp Pro Gly leu Thr Phe Gly Ile Arg Leu  
210 215 220

Arg Tyr Gln Asn Leu  
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<210> 2  
<211> 687  
<212> DNA

<213> Moloney murine leukemia virus

<400> 2

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120

cttaccacag atttatgtat gttagccac catggaccat cttattgggg gctagaatat  
180

caatcccctt tttcttctcc cccggggccc ccttggtgct cagggggcag cagcccaggc  
240

tggtccagag actgcgaaga acctttaacc tccctcacc ctcggtgcaa cactgcctgg  
300

aacagactca agctagacca gacaactcat aaatcaaatg agggatttta tgtttgcccc  
360

gggccccacc gccccgaga atccaagtca tgtgggggtc cagactcctt ctactgtgcc  
420

tattggggct gtgagacaac cggtagagct tactggaagc cctcctcatc atgggatttc  
480

atcacagtaa acaacaatct cacctctgac caggctgtcc aggtatgcaa agataataag  
540

tggtgcaacc ccttagttat tcggtttaca gacgccggga gacgggttac ttctggacc  
600

acaggacatt actggggcctt acgtttgtat gtctccggac aagatccagg gcttacattt  
660

gggatccgac tcagatacca aaatcta  
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<210> 3

<211> 10

<212> PRT

<213> Artificial Sequence.

<220>

<223> collagen-binding domain of von Willebrand Factor

<220>

<221> BINDING

<222> (1) (10)

<223>

<400> 3

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#153407v1